



Glenda Ritz, NBCT
Indiana Superintendent of Public Instruction

Teachers' Toolbox

August 2016

A content focused resource for classroom instruction

Welcome back from CCR!

Welcome back, teachers! We hope your summer was relaxing, rejuvenating, and satisfying! To start the school year off, the CCR division has created a short video introducing different topics. Click on the image below to see the video.



Topics in Video:

- ESSA
- Science and Computer Science Standards
- Indiana's Bicentennial Resources and Events
- IDOE Events Calendar
- IDOE Website Redesign
- Teachers' Toolbox
- Learning Connection

Welcome back from
Superintendent Ritz!



On behalf of the Indiana Department of Education, welcome back to school! I know you already have a lot planned this year, and I hope Teachers' Toolbox can help to enhance your student's learning experiences.

If you visit the Indiana State Fair this year, you may notice that the Department is sponsoring "\$2 Teacher Appreciation Tuesday." We also have a [coupon for a free milkshake](#) for teachers at the Dairy Barn. Think of this as a small token of appreciation for all you do for our students!

From the Office of Student Assessment

For ISTEP+ Grades 3-8, [items and scoring](#) notes have been released for ELA, Math, Science, and Social Studies. ISTEP+ Grade 10 items and scoring notes will be released later this fall after cut score setting. Any questions, contact the [IDOE Assessment specialists](#).

Spring 2016 Guide to ISTEP+ Scoring

Content Area	Grade	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
English/Language Arts		Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Mathematics		Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Science		N/A	Grade 4	Grade 5	Grade 6	N/A	N/A
Social Studies		N/A	N/A	Grade 5	N/A	Grade 7	N/A

Scroll to the bottom of the webpage

New Teachers' Toolbox Email

Would you like to subscribe* to Teachers' Toolbox??

Do you have an idea or suggestions for a feature in Teachers' Toolbox?

Email us at teacherstoolbox@doe.in.gov

*To subscribe send an email with your first/last name, email, school corporation, and zip code.

FREE Field Trips Available

The Indiana State Museum is offering free field trips this year and has several educational programs available. Check out the links to the left to see what is available for you and your students!

- [Indiana State Museum](#)
- [Field Trip Info](#)
- [Field Trip Inquiries](#)
- [K-12 Education Program Guide](#)



INDIANA STATE
MUSEUM
AND HISTORIC SITES

Glenda Ritz, NBCT
Superintendent of Public Instruction

In this Issue:

- 2 [Webinars and Grant Opportunities](#)
- 3 [CCR PD and HFR](#)
- 4 [Alternative Ed and High Ability](#)
- 5 [Instruction & Access For All](#)
- 6 [Elementary STEM](#)
- 7 [Elementary Literacy](#)
- 8 [Secondary Literacy](#)
- 9 [Social Studies](#)
- 10 [Secondary Science](#)
- 11 [Secondary Math](#)
- 12 [Agriculture Education](#)
- 13 [Engineering and Technology](#)
- 14 [World Languages](#)
- 15 [Health and P.E.](#)
- 16 [Health Science](#)
- 17 [FACS and WBL](#)
- 18 [Fine Arts](#)
- 19 [Business/Marketing](#)
- 20 [K-12 Computer Science](#)
- 21 [Trade and Industry](#)

Find past editions of Teachers' Toolbox [here](#).



Glenda Ritz, NBCT
Indiana Superintendent of Public Instruction

Teachers' Toolbox

A content focused resource for classroom instruction



August 2016

September 2016 IDOE Webinars

Monday

12

9 AM (ET): *Hacking the Computer Science Standards K-8*

Register [here](#)

Tuesday

13

9 AM (ET): *STEM School Certification* Register [here](#)

1 PM (ET): *Hacking the Computer Science Standards K-8*
Register [here](#)

Hacking the Computer Science Standards K-8

Please join the IDOE Science Content Specialists for a webinar discussing Computer Science Standards K-8. This session will review the newly created and adopted computer science standards for kindergarten through eighth grade. You will leave with an understanding of the DOE's vision for the standards, their structure and grade bands, and an overview for professional development that will be offered for successful implementation.

STEM School Certification

Please join the IDOE College and Career Readiness Division for a webinar discussing STEM Certified Schools. Specialists from the IDOE will be discussing the STEM School Certification process, resources, and website. Schools at any stage (Developing, Initial, Approaching, and Full) are encouraged to attend to ask questions and gather information. If your school is thinking about applying for certification during the 2016-2017 school year, it would be beneficial for a member of the STEM leadership team to attend.

Teacher Grant Opportunities

Lilly Endowment Teacher Creativity Fellowship

Lilly Endowment is inviting applications to an annual fellowship program that provides support to K-12 educators in Indiana to pursue an imaginative project that infuses their busy lives with personal renewal and intellectual revitalization. Previous fellowship winners have traveled worldwide to understand the cultures reflected in their increasingly diverse student populations, traced their own ethnic identity and family tree, and pursued their interest in the arts, scientific exploration, and the natural world. The program is open to licensed K-12 educators working in public and private schools in Indiana. Applicants must have at least three years of professional experience in education. <http://www.teachercreativity.org/>

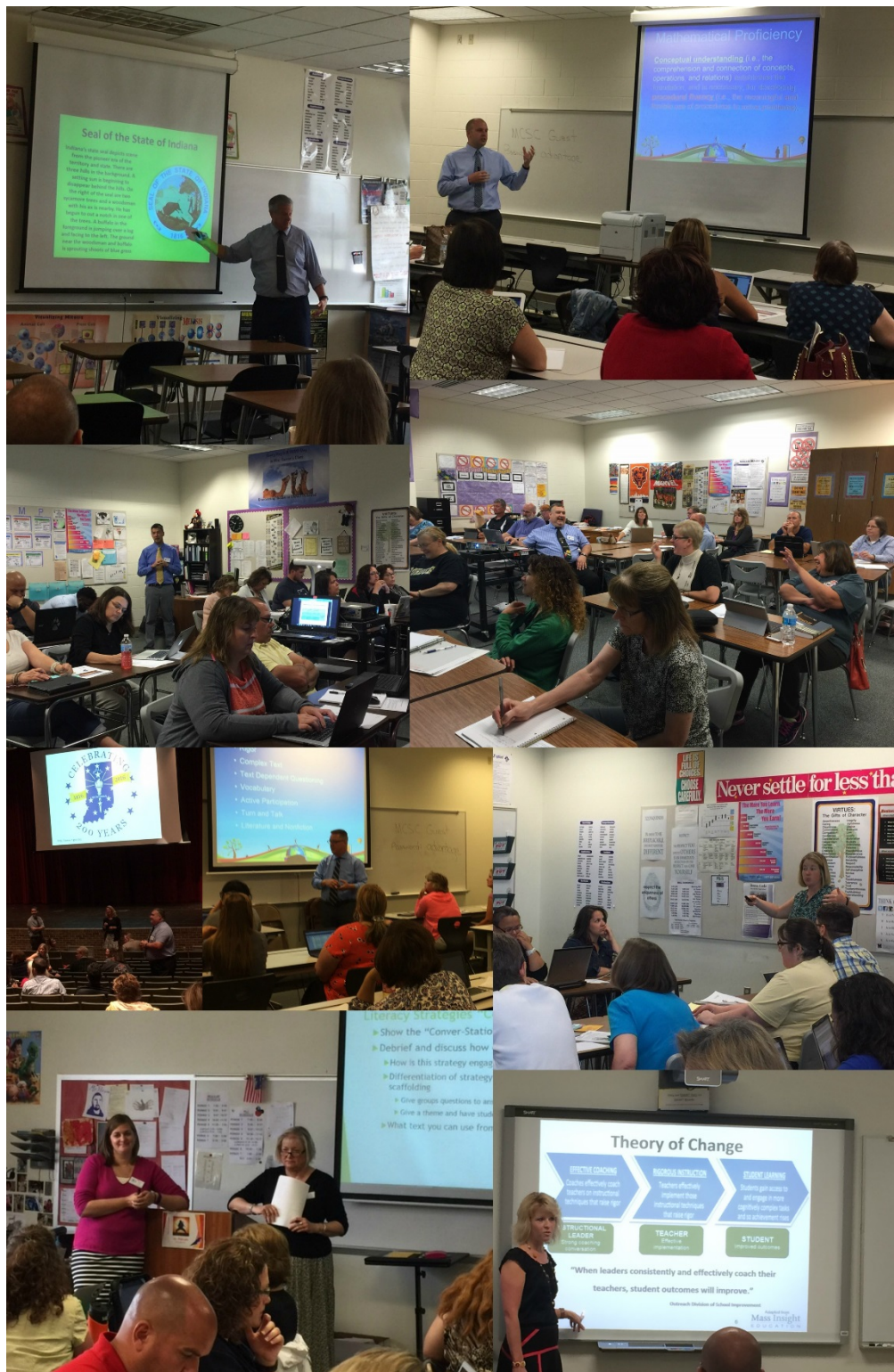
Target Field Trip Grants Deadline: August 1 - September 30, 2016 It's become increasingly difficult for schools to fund learning opportunities outside the classroom. To help them out, Target launched Field Trip Grants in 2007. Since then, they've made it possible for millions of students to go on a field trips. Each grant is valued up to \$700. More info [HERE](#).

Disney Summer of Service grants will offer young change-makers (ages 5-18) \$500 to gather their friends and turn creative ideas into projects that will positively impact their communities. Application Deadline: September 30, 2016. Learn more [HERE](#).
<http://ysa.org/grants/youth-grants/disney/>

Fuel Up to Play 60 The competitive, nationwide funding program can help your school jumpstart and sustain healthy nutrition and physical activity improvements. Funds can be used to conduct in-school promotions focused on creating a healthier school and to implement Healthy Eating and Physical Activity Plays. Funds can also be used for professional development, nutrition education materials, and physical education equipment & materials. <https://www.fueluptoplay60.com/funding/general-information>

2016 CCR Summer Professional Development

The College and Career Readiness Division along with the Outreach Division facilitated Summer PD at seven sites around Indiana this summer. PD sessions focused on best practices, new science standards, literacy, world language, IN Bicentennial and leadership.



Hoosier Family of Readers: CLASSROOM CHALLENGE

Teachers, welcome back to school! As you are creating your lesson plans, please consider including your classes' participation in the Hoosier Family of Readers Teacher Classroom Challenge. Superintendent Glenda Ritz and the Hoosier Family of Readers team challenge classrooms throughout Indiana to celebrate the Indiana Bicentennial by reading 200 books, either digital or print, before December 31, 2016!

When you reach the challenge goal, take a photo of your class with a visual that displays your accomplishment! Be creative! To share your progress, [complete this form](#) upload your photo, and click Submit. You can also share your classroom's progress with us on social media by mentioning the [Hoosier Family of Reader's Twitter](#) or our [Hoosier Family of Readers Facebook page](#).

Do you work or volunteer at a Title I (or Title I eligible) school OR a program that serves at least 70% low income families? If so, please register with our partners First Book. First Book offers high quality books at both free and reduced cost. Registration is free and easy! Each registration that the Hoosier Family of Readers program refers will count to our total. Once we refer 2,000 registrations, First Book will send us a truckload of books to distribute to classrooms across the state.



Alternative Education

Teachers' Toolbox

Alt Ed Specialist: [Julia Johns](#)

August 2016

SY2016-17 Data Collections

September through January - *Teacher/Student Surveys* - memo will be sent out September 2016.

December through January - *FTE report* -memo will be sent out December 2016.

April through June - *Grant Renewal* -memo will be sent out April 2017.

May through July - *DOE-AL Reporting* - memo will be sent out May 2017.



[Dropout Prevention](#)

[Reading & Writing](#)

[Indiana History Rocks!](#)

[Indiana Authors](#)

[The Teaching Channel Rocks!](#)
[Student Engagement in ELA](#)

[The Wingman: Engaging Reluctant Students](#)

[Back-to-School Countdown: How to Build Classroom Culture](#)

Noteworthy Articles

[The Four Keys to Helping At-Risk Kids](#)

[Ten Simple Strategies for Re-engaging Students](#)

Back-to-School Book Study

Offering a Back-to-School book study for 10 PGP pts -beginning 8/29/16. Please vote on one of four book [here](#)



High Ability

High Ability Coordinator:
[Amy Marschand](#)

Hopefully you enjoyed some free time (☺)? this summer to review the Indiana High Ability ELA Units ([Teacher's Toolbox July 2016](#)). If you did look at the units, you probably noticed an emphasis on 21st Century Skills. These skills can be incorporated to any and all classrooms.

Collaboration

Students are encouraged to work in pairs or small groups to carry out many learning activities and projects, to discuss readings, and to plan presentations.

Communication

Students are encouraged to develop communication skills in written, oral, visual, and technological modes in a balanced format within each unit of study.

Creative Thinking

Students are provided with models of creative thinking that develop skills that support innovative thinking and problem solving.

Critical Thinking

Students are provided with models of critical thinking that are incorporated into classroom activities, questions, and assignments.

Problem Solving

Students are engaged in real world problem solving in each unit of study and learn the processes involved in such work.

Cross Cultural Skills

Students read and discuss works and events representing the perspectives of different cultures. They have opportunities to analyze different perspectives on issues.

Technology Literacy

Students use technology in multiple forms and formats to create generative products.

Social Skills

Students work in small groups and develop the tools of collaboration, communication, and working effectively with others on a common set of tasks.

Information Media Literacy

Students use multimedia to express ideas and project learning.

Instruction & Access for All

Understanding Executive Functioning and Its Connection to Learning

What is Executive Functioning?

According to the Center of the Developing Child at Harvard University, "executive function and self-regulation skills are the mental processes that enable us to plan, focus attention, remember instructions and juggle multiple tasks successfully." Our brains are not simply born with these abilities, we "are born with the potential to develop them."

What does Executive Functioning have to do with Learning?

These skills have been strongly correlated to positive school and life outcomes. Children with high executive functioning skills exhibit positive school behaviors, good performance in school, and good health and life decision-making behaviors. These children are creative, flexible, organized, emotionally controlled and ready to learn.

Normal Development

The ability to make a mental image in ones mind in order to anticipate the future is a developmental skill. Some students may have delays in developing these skills which require explicit teaching of planning and executing tasks and providing support in these areas. Executive function and self-regulation skills depend on three types of brain function: working memory, mental flexibility, and self-control. These functions are highly interrelated, and the successful application of executive function skills requires them to operate in coordination with each other.

Development of Executive Functioning Skills:

2 years old: NOW

3-5 years old: 5-20 minutes

1st grade: Several hours

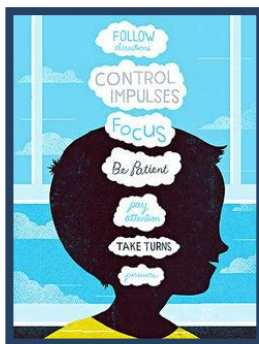
3rd grade: 8-12 hours

12-16 years old: 2-3 days

17-23 years old: 2-3 weeks

23-35 years old: 3-5 weeks

(Jacobsen and Ward, Cognitive Connections)



MAGIC TRICKS TO SUPPORT EF:

- ✓ Organize the classroom to Reduce stimulation and disorder.
 - **Auditory:** Put tennis balls on chair legs; use rugs and wall hangings to absorb noise; consider white noise machines or fans to block out unavoidable noises; and allow students to use earplugs and headphones.
 - **Visual:** Dim harsh lighting, declutter surfaces and walls, and allow students to wear a baseball cap or sunglasses to help blunt the effects of too much visual stimulation.
 - **Olfactory (smell):** Try to avoid using scented cleaning products, perfume, gum, and soaps.
- ✓ Break daily agenda into units of time, provide a photocopy of this to students to highlight as they complete parts of their day
- ✓ Use "real life" visuals to demonstrate what a completed task looks like (take photos)
- ✓ Help students to backward plan their work (Start with Done)- Get Ready, Do, Done-Strategy
- ✓ Use "Job Talk"
http://efpractice.com/images/resources/class_job_cards.pdf

Additional Reading & Resources for Review:

- ❑ <http://www.edutopia.org/blog/executive-function-development-students-add-lori-desautels>
- ❑ <http://blog.brookespublishing.com/7-tips-for-helping-students-avoid-overload/>
- ❑ <http://www.edutopia.org/blog/brain-based-teaching-strategies-judy-willis>
- ❑ <http://www.idonline.org/article/24880?theme=print>
- ❑ <http://www.theinclusiveclass.com/2012/05/25-easy-ways-to-improve-executive.html>

Apps to Support Executive Functioning:

- Calm (an app for meditation and mindfulness) <http://www.calm.com/>
- Kid-friendly meditations and exercises promote regulation and use of language <http://www.cosmickids.com/>
- Doodle Buddy (for iOS) provides personally relevant images (such as classroom settings) and allows users to snap pictures and add annotation
- Can Plan (free for iOS with in-app purchase for full features), which allows for task analysis with photo and audio supports incorporated into a calendar

Elementary STEM

Teachers' Toolbox

Focused on Science, Technology, Engineering, and Mathematics

August 2016

Nick Flowers nflowers@doe.in.gov



Mathematics Instructional Best Practice Establish mathematics goals to focus learning

Effective teaching of mathematics establishes clear goals for the mathematics that students are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions.

Teachers and students need to be able to answer crucial questions:

Principles to Action, pg 12

- What mathematics is being learned?
- Why is it important?
- How does it relate to what has already been learned?
- Where are these mathematical ideas going?

Goals or essential questions motivate learning when students perceive the goals as challenging but attainable (Marzano 2003; McTighe and Wiggins 2013).

Referring to goals during instruction allows students to be more focused and better able to perform self-assessment and monitor their own learning (Clarke, Timperley, and Hattie 2004; Zimmerman 2001).

Teachers can discuss student-friendly goals as appropriate during the lesson so that students see value in and understand the purpose of their work (Black and Wiliam 1998a; Marzano 2009).

The purpose of the lesson should not be a mystery to students.

Daily goals don't have to be posted, it is important that students understand the purpose of a lesson and how the activities contribute to and support their mathematics learning.

Resources:

- [YouTube Video](#)
- [Teacher and Student Actions](#)

Check out my Learning Connection community "Elementary Math, Science, and STEM" for announcements on upcoming webinars and a fall book study.

How much time is needed for Math and Science?

Indiana code does not require a specified amount of time that must be spent on mathematics and science curriculum and instruction. It only specifies that a school corporation's curriculum includes mathematics and science. (IC 20-30-5-7)

Current research places the focus on the quality of the instruction, not the quantity of instruction. A student that has a 60-minute math block instructed with research-based best practices will have better success and retention than a student with a 90-minute math block instructed without research-based best practices.

When you structure the math block, you need to identify the core math instruction (Tier 1). Within Tier 1 instruction you will differentiate to meet the needs of your students. If you move from a 60-minute to a 90-minute core math block, you need to focus on the quality of instruction. Then outside of your core math block will be Tier 2 instruction.

Children's Book Corner for Mathematics

[Addition](#)

[Multiplication](#)

[Subtraction](#)

[Division](#)

[Shapes](#)

[Geometry](#)

[Graphing](#)

[Telling Time](#)

[Fractions](#)

[Estimation](#)

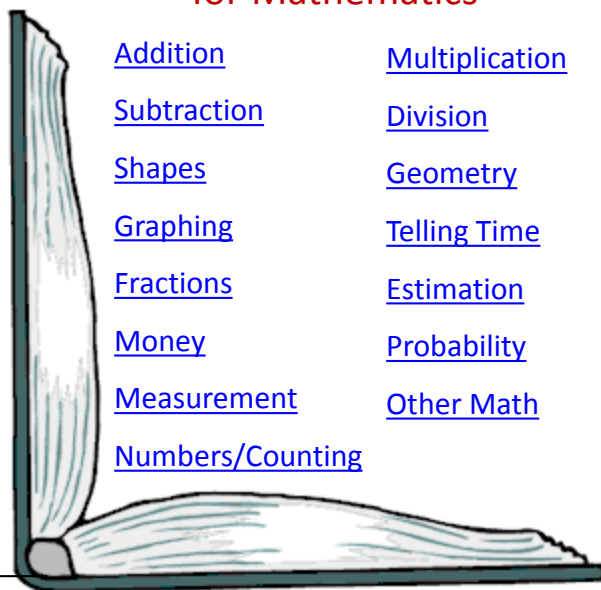
[Money](#)

[Probability](#)

[Measurement](#)

[Other Math](#)

[Numbers/Counting](#)



Elementary Literacy

Teachers' Toolbox

August 2016

Literacy FOCUS of the Month

The purpose of the Literacy Focus of the Month is to provide guidance to administrators and teachers for supporting a monthly, school wide instructional focus based on best practices and evidence based strategies in literacy. This "user-friendly" FOCUS and support tools will assist districts and schools in the implementation of reading instruction in classrooms across multiple grade levels, as well as different subjects/content areas. The topics in the FOCUS range from policies and procedures to the five essential components of reading as identified by the National Reading Panel. The support tools are devoted to strengthen administration and teacher content knowledge and foster discussion by focusing on one topic each month during grade level or faculty meetings. Although the monthly focus will highlight and supplement a specific procedure or skill, it is impossible to teach the components in isolation; therefore, the Literacy Focus of the Month should serve to present a school-wide shared commitment to literacy.

NEW for Back to School 2016

[2016-17 Back to
School Writing
Tools/Support](#)

[September 2016
Instructional
Practices FOCUS](#)

[August 2016
Phonological
Awareness-Phonemic
Awareness FOCUS](#)

Summer/Spring 2016

[July 2016
Independent Reading
FOCUS](#)

[June 2016 Teaching
Inference FOCUS](#)

[May 2016
Vocabulary...Digging
Deeper FOCUS](#)

[April 2016 Fluency
FOCUS](#)

Winter 2016

[March 2016
Comprehension
FOCUS](#)

[February 2016
Writing Connected to
Texts FOCUS](#)

[January 2016
Vocabulary FOCUS](#)

Specialist Contact

[John Wolf](#)

(317) 234-6702
jwolf@doe.in.gov

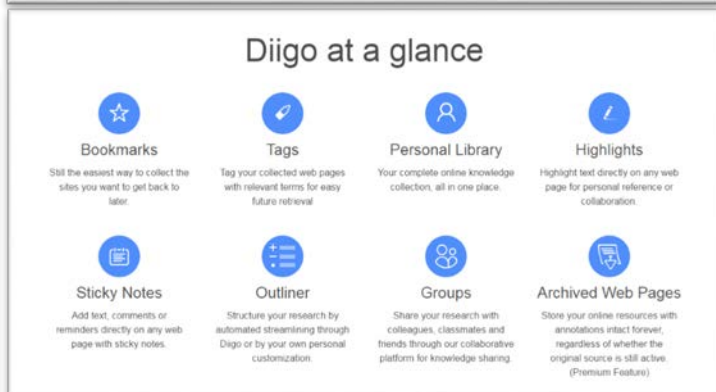
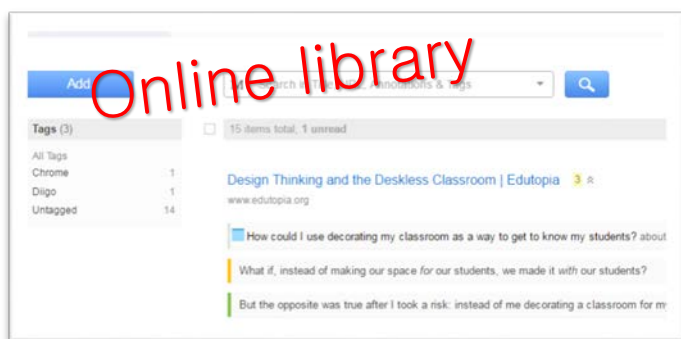
Secondary ELA

Teachers' Toolbox

August 2016



Have you heard of “[diigo](#)”? It is a web-based way to annotate and comment on webpages. Once an annotation is done on a webpage, it records it into a library that can be accessed from anywhere. There are many other features; being able to create groups to share pages and annotations with, ways to create an outline, and ways to tag the different entries for easy searching. “diigo” is accessible from Chrome, Firefox, and Internet Explorer, as well as has an iTunes and Google Play app. Melanie Martz shared this tool at multiple IDOE eLearning conferences this summer; if you were there, share it with others!



[Edutopia](#) Find: “The 8 Minutes that Matter Most”

Brian Sztabnik, featured blogger on Edutopia.org, [Talks with Teachers](#) blogger, and [The Best Lesson Series](#) editor talks about how the beginnings and endings of lessons are the ones that matter most in his blog post “[The 8 Minutes that Matter Most.](#)” Below is a snapshot of what he shares in his post – check out the post for more details!

- | | |
|-------------------------|-----------------------|
| Beginnings: | Endings: |
| 1. Trend with YouTube | 1. Level Up |
| 2. Start with Good News | 2. Exit Tickets |
| 3. Cross Disciplines | 3. Mimic Social Media |
| 4. Write for 5 | 4. Post-It Power |



Indiana NCTE Affiliate



A group of Indiana Educators are working to revive the Indiana Affiliate for NCTE, National Council of Teachers of English. To join the Indiana Affiliate go to this [google form](#).



Although we all already have tall “To Read” piles; here is another (although my not super new) to add and may benefit your classroom as well. Mary Cay Ricci’s [Mindsets in the Classroom: Building a Culture of Success and Student Achievement in Schools](#) is “inspired by the popular mindset idea that hard work and effort can lead to success. This resource provides educators with ideas for ways to build a growth mindset school culture, where students are challenged to change their thinking about their abilities and potential.” Read chapter one of Ricci’s [Mindsets in the Classroom](#) [here](#).

Resources to learn more about the “Mindset Idea”

- [Mindset Pinterest page](#)
- [Carol Tomlinson on mindsets in the classroom](#)
- [“Mindsets in the Classroom” Downloadable Tools and Resources for Educators](#)
- [Mindset PPT](#)
- [Mindset by Carol Dweck](#)
- [Teacher Education Review Podcast](#)

Specialist Contacts

Melanie Martz
(317) 232-9013
mmartz@doe.in.gov

Jill Lyday
(317) 232-0867
jlyday@doe.in.gov

Julia Johns
(317) 233-4936
jjohns@doe.in.gov

Social Studies

Teachers' Toolbox

August 2016



LOOKING FOR SOME GOOD BICENTENNIAL MATERIAL? TRY THESE LINKS:

BICENTENNIAL RESOURCES ON DOE WEBSITE



These Bicentennial Resources aim to honor our state's 200 years of history. These links offer the reader a guide to our state. It offers information about our history, government, our emblems and symbols, and historic sites throughout the state, museums and much more. It is our hope that the reader will find hours of enjoyment revisiting Hoosier History. Click on the flag to access resources.

- **Bicentennial Resource Guide:** A number of Bicentennial resources as well as a list of Indiana Historic Sites and Historical Markers is located in this guide.
<http://www.doe.in.gov/sites/default/files/bicentennial/bicentennialguide-2015-10-13.pdf>
- **Destination Indiana:** From the Indiana Historical Society - Destination Indiana brings Indiana's history to life through thousands of images and hundreds of stories about our Hoosier heritage. All 92 counties are included!
<http://destination-indiana.com/#&sort=popular>
- **Indiana Territory:** documents the formation of Indiana from the Northwest Territory, through various stages as Indiana Territory. Includes discussions of finances and slavery. William Henry Harrison's life and career is highlighted in the timeline. <http://www.in.gov/history/files/interritory.pdf>
- **Indiana Statehood:** Provides details about the process, the people, and the times that led to Indiana's acceptance as the nineteenth state on December 11, 1816. <http://www.in.gov/history/files/instatehood.pdf>

FOR TEACHERS: WHAT IS INDIANA KIDS' ELECTION?



The Indiana Department of Education is sponsoring the Indiana Kids Election program

Students throughout Indiana will get a chance to make their choices for president, governor and senator through a mock election this November. The students will vote November 8th, the same day adults go to the polls for the general election. Organizers say the Indiana Kids' Election is based on the premise that voting is occasionally done by inspiration, but more often by habit. The program seeks to emulate the election process. Students participate in voting milestones such as registering to vote on or before October 11. Under Indiana law (IC 20-30-5-4), schools are required to give instruction on the election process two weeks preceding a general election for all students in grades 6-12. The Indiana Department of Education, the State Bar Association, and the Indiana Secretary of State are all sponsoring this Bicentennial Legacy Project. Visit www.inkidselection.com to sign up today!

Visit the DOE Civics Webpage

"...a foundation in civics is not a luxury but a necessity. Students today absolutely need a sense of citizenship, an understanding of their history and government, and a commitment to democratic values. They need to know their rights--and their responsibilities. Civics cannot be pushed to the sidelines in schools." (Former U.S. Sect. of Ed. Arne Duncan)

<http://www.doe.in.gov/standards/civics-education>

Specialist Contact: Bruce Blomberg, Social Studies Specialist, bblomberg@doe.in.gov, 317-232-9078

Secondary Science

Teachers' Toolbox

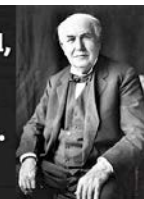
August 2016

Building Culture in the Science Classroom

Setting the culture of a science classroom is imperative for students to work and grow as scientists. Pointing out that the most brilliant of scientists do not get it right on the first try and that we learn just as much from wrong answers as we do from right is needed. Modeling this behavior is important. As educators, we find the balance between being the authority in the room while having the ability to showcase making mistakes and learning from them. Highlighting that it is ok for students and the educator to make mistakes, be human, and grow from those mistakes should be evident. A few ideas for ways to start setting this environment; instead of going over the class rules and expectations have students break into groups and act out the expectations either correctly or incorrectly. Start the year with a simple lab, one that students can make multiple mistakes, but learn from them; penny drop lab, measurement lab, making a peanut butter and jelly sandwich procedural lab, baking soda and vinegar lab, etc., cold call on students questions about the class rules and expectations, but whoever you call on first must give an incorrect answer and then pick a separate student in the class to correct their answer. Lastly, emphasize that your classroom is not a competition. There is room for all students to be successful. Rather than tearing down a fellow student, make it known from the start that we want to collaborate and lift each other up. For more ideas on activities to set the mood see: <http://www.stevespanglerscience.com/lab/experiments/back-to-school-science-that-sticks/>
<http://www.nclark.net/Chemistry>

**I have not failed,
I've just found
10,000 ways
that won't work.**

- Thomas Alva Edison



Check out the Library of Congress for some ideas on using primary science texts in the classroom. <https://blogs.loc.gov/teachers/2016/06/primary-sources-in-science-classrooms-size-scale-and-scientific-communication/>

From Science Memorizing to Science DOING

Gone are the days of the one room school house where students memorize aloud random facts. Educators no longer need to be the "Sage on the Stage". As the world around us continues to change and grow, education needs to as well. This transition from memorizing science facts to "doing" science makes classrooms engaging, learning meaningful, and is best practice. The new Indiana Academic Standards for Science 2016 supports this transition by including the content standards (what the students work with), in addition to, the science and engineering process standards (how the students work with the content).



Jarred Corwin

jcorwin@doe.in.gov

Secondary Science and STEM Specialist

Follow us on the

[Learning Connection](#) Science Educator's Discussion Group

**"Tell me and I forget.
Teach me and I remember. Involve me and I LEARN."**

Benjamin Franklin

Science Standards:

<http://www.doe.in.gov/standards/science-computer-science>

ISTEP + Released Items and Scoring Notes

Be sure to examine the Spring 2016 Guide to ISTEP + Scoring for grades 4 and 6 on the

<http://www.doe.in.gov/assessment/istep-grades-3-8>

webpage. Grade 10 ISTEP + will post at a later date, after cut scores are determined.

**Specialist
Contact**

Secondary Math

Teachers' Toolbox

August 2016

Relating the Mathematics Directly to Your Students

As the old saying goes; "You never get a second chance to make a first impression." This is true but you might just be able to sway your new students into diving into the mathematics you are teaching. You need to include their experiences in the math you are teaching. You either will be or have already started classes with your new students. How much do you know about your students? How can you relate the math you will be teaching to them? Below are a couple of ideas that might help you relate the math you are teaching to your students.

Dan Meyer has created an interesting "Who I Am" worksheet that students fill out and return so you can use their experiences in the math you are teaching throughout the year. Bring in the student's personal connections to the math being taught and problems given in class. You can access the ["Who I Am" Sheet here](#). This comprehensive information allows you the ability to relate the math you will be teaching to your students. Use their favorite team, sport or book in a problem you give for homework, on a quiz or test. You may only hit a few student's interests each lesson or chapter but by the end of the year you should be able to relate problems to every student in some way. Another possible tool to use for a similar purpose is the "10 Question" PowerPoint. You can access the ["10 Question" PowerPoint here](#). Use the responses to help involve your students in the process of working and learning the mathematics.

Another great way for students to get involved in the math, is for you to use them as a resource for the problems. For instance a fun warm-up that will strengthen the student's computation skills is to have five students randomly choose unique numbers from 1 – 25 (you can go greater than 25 but it gets much harder the greater the number.) An example might be 14, 6, 2, 17, 10. Then have a sixth student choose a target number. An example might be 5. Students must use each of the 5 original numbers **exactly once** to **write an equation** that **equals the sixth target number**. So a possible solution might be $6 - (((14 / (17 - 10)) / 2) = 5$ or $2 + ((6 / (14 / (17 - 10))) = 5$. What is so great about this warm-up is the students choose the numbers and there is almost always more than one correct solution. Try it for yourself. It always works!

Math Reference Sheet Resources

Have you been looking for some reference sheets you can hand to your students at the start of the school year to help them have additional resources they need at their fingertips. So have I! I will be posting Math Reference Sheet Resources for as many secondary math classes I can find and/or create at the bottom of the Mathematics Web-Page on the Indiana Department of Education web-site. Starting later this month, check back often to see if there is something you can use for your classes.

<http://www.doe.in.gov/standards/mathematics>

And example would be a new Pre-Calculus resource:

[Trig Tricks and Tips reference chart published by Marian University faculty](#)



Specialist Contact

Bill Reed
Secondary Math and
STEM Specialist
wreed@doe.in.gov
317-232-9114

Global Learning in Mathematics

Each of you strive to make the math that your students do relevant to everyday life so why not add its relevance to the world as well? There are resources out there to help you get started. Our Indiana Academic Math Standards have been internationalized to help provide you with examples of just how to integrate global thinking into your math class daily. Here's an example:



Academic Standard Indicator: G.TS.5 (Geometry)

Standard Description: Solve real-world and other mathematical problems involving volume and surface area of prisms, cylinders, cones, spheres, and pyramids, including problems that involve algebraic expressions.

Suggestion for Integrating International Content:

Have students use historical data relating to the thickness and area of glaciers around the world to determine their volume at various points in time.

Click [HERE](#) for a link to 6-12 internationalized standards for Math!

Agriculture Education

Teachers' Toolbox

August 2016

Preparing for The New School Year

A Few fun items that are **Totally Acceptable** to start the new school year:

1. To enjoy fresh veggies from your garden and brag about it to anyone who will listen
2. To purchase a Fitbit for the upcoming school year to track how many steps you really take each day (you can even challenge your ag teacher friends!)
3. To enjoy the networking and friendships you gain from your state or regional teachers' conference
4. To make a "bucket list" of new things to do and try for the upcoming school year with your students and colleagues
5. To buy a new planner or calendar for the upcoming school year that shows off your personality!
6. Have fun! It's a long year with a lot of contests, classes and conventions, so enjoy but don't forget to take time to yourself!

National Teach Ag Ed Day

The 2016 National Teach Ag Day has been slated for **September 22**. The National Teach Ag Campaign is an initiative to bring attention to the career of agricultural education, get students thinking about a possible career in agricultural education, and support current agriculture teachers in their careers.

Growth Energy will host a live webcast celebration from Sioux Falls, SD, that day. Take time to show your students how rewarding teaching Ag Ed can be.



More info here:

<http://www.naae.org/teachag/>

Discovering Farmland

Need help with easy lesson plans while away? Check out Discoveringfarmland.com. This website is set to engage students with glimpses into agriculture using lessons and activities in everything from sustainability, new sciences behind farming, and entrepreneurship. Several lessons and videos are available for use.



Bowers Advances

Kraig Bowers, Fairfield HS, was named the National Assn. of Agricultural Educators Region IV "Ideas Unlimited" winner.

The Ideas Unlimited contest is designed to give members an opportunity to exchange classroom, SAE, leadership, and other teaching ideas. Applicants must submit an application describing their idea and then make a presentation at the region contest. Bower's idea, creating the "Ag Ed Discussion Lab" on Facebook, was chosen as the best idea from the six-state region. He will now present the award-winning idea to the entire nation at the National NAAE Convention this November in Las Vegas, Nev.

The Ag Ed Discussion lab is a group page on Facebook which allows ag teachers from throughout the nation to ask questions, share ideas and share lessons with their fellow ag teachers. Bowers created the page last August and now has over 4,000 subscribers nationwide.

Region IV, which is the largest region in the nation by membership, consists of Indiana, Ohio, Kentucky, Michigan, Illinois and Missouri.

The Ideas Unlimited Contest is sponsored by National Geographic Learning and Cengage Learning.

Join here: [Ag Ed Discussion Lab](#)

Professional Development

Sept. 22 – CTE New Teacher Summit
(Early Bird ends 9/1)

Sept. 23-24 – CTE Conference
(Early Bird ends 9/1)

Nov. 29-Dec. 3 – NAAE Vision
(Early Bird ends 10/28)

Specialist Contact

Celya McCullah-Glowacki
cglowacki@doe.in.gov
317-234-5719



Design Thinking and PBL

If you have tried a new strategy in your classroom in the past, you are certainly not alone. As educators, we are all searching for those “golden” opportunities for students that meet standards yet are genuine and simple to grade at the same time! Chances are you have heard of and/or tried project-based learning (PBL). But have you tried combining design thinking and PBL? Creating a true PBL experience can be hard work for the educator up front, but provides genuine and scaffolding opportunities for students. Design thinking with PBL lends itself to the engineering and technology courses with ease because of the nature of the content. A great way to use design thinking and PBL is using the Technology Student Association (TSA) competitions as part of your curriculum. TSA competitions can be used for many different courses. *Article Source:* [Edutopia](#)

Technology Student Association

(TSA) is an career and technical student organization focused on middle school and high school students engaged in science, engineering, and technology (STEM). Competitions include dragster, flight, robotics, future technology teacher, and much more! Competitions can be adapted for classroom instruction and align to Engineering and Technology Standards. There will be an Indiana competition in the 2016-2017 school year. If you are interested in becoming a chapter advisor and starting a chapter, please contact Mary Rinehart at mrinehart@doe.in.gov. Becoming a chapter allows you to gain access to the competition rules to use for classroom instruction. New chapters may qualify for a grant from the champion fund from National TSA to offset membership costs. Learn more about National TSA website at <http://www.tsaweb.org/>



The **Robotics Design and Innovation Standards** are currently under public review. This new course will be available starting Fall 2017. Please help us review these by completing [this survey](#).

Environmental Sustainability will replace Biotechnical Engineering (PLTW and Non-PLTW) in the 2016/17 school year. The new standards are on the [IDOE website](#).

Content News

Resource Central

♦ **BlendSpace** is a digital space to plan lessons and gather resources. You can share your lessons with students and/or other teachers. You can also download lessons created by other teachers. Visit <https://www.tes.com/> to make your FREE account.

♦ **The K12 Engineering Education Podcast** is a podcast for all the educators, engineers, entrepreneurs, and parents out there who are interested in getting kids into engineering at younger ages. Listen to real conversations among various professionals in the engineering education space, as we try to find better ways to educate and inspire kids in engineering thinking.



SPOTLIGHT ON SAFETY

Regardless of what your shop or lab looks like and the kinds of tools you use, you need to adequately prepare your students to be safe in the lab. Clearly laying out your requirements by creating a list of rules and/or requirements is one way to accomplish this. Parents could sign the sheet before your first project. You could also give a quiz over the safety concepts taught in class. Pair this with a lesson and signs about safety to hit a safety home run. Make it an additional goal to model safety all year for your students. Click here to see [examples](#) of safety contracts. *Have an example to share? Post it to the Shop/Lab Safety folder in the Indiana Engineering and Technology Education Community in the [Learning Connection](#).*



Specialist Contact

Mary Rinehart

mrinehart@doe.in.gov

317-232-0815

[@mrinehartdoe](#)

World Languages

Teachers' Toolbox

August 2016

90% Target Language Usage... Whoa!

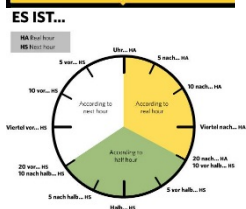
It's the first day of school and you are a Level 1 teacher! You're pumped, your students are excited and then... you don't speak any English to your students! You'll be exhausted, things will take longer, but you will be meeting the needs of all of the learners in your classroom if you can infuse 90% TL the right way. Keep reading for strategies!

Start class with a scenario that

students can't wait to talk about! Think about that day that you wore two different shoes to school or when you had something on your face... Every student notices and most are just dying to talk about it. So, be intentional and create scenarios like that where you can give them vocabulary & phrases to use to allow them to talk about it and laugh. What a great way to start your lesson! See more scenarios and ideas like this from [Señor Howard's Blog!](#)

Target Language Infusion through

infographics! Staying in the target language much easier if your students have graphics to help them have context. These work at upper levels too. You can go much farther by utilizing graphic representations of the material you are trying to present. **Pinterest** is a **GREAT** resource for finding infographics. Your students can create them too! Give them a try!! Follow my board: www.pinterest.com/jwoernerdoe/infographics



Two from the field:

Here are a few great ideas that came out of the world language PD sessions this summer:

1. "Frijoles" is what Doe Selke from Alexandria uses to keep her students using the target language in partner and small group activities. She prepares small baggies with 10 beans each for each one of her students. Students hold each other accountable if their classmates slip into English and ask for one of their beans!



2. "Language Placemats" are used as a means of giving students a variety of target language expressions that they'll want and need to start the year/unit. Just as you would for a small child at dinner, use pictures and make it interactive! Deborah Blaz in Angola indicated that she's been using these for years!

Comprehensible Input – How?

Maintaining 90% usage of target language in the classroom is tough, but doable. In order to make sure that students can join you on your target language journey, you must make sure that the input that you're giving them can be understood by them. For the theory side of this, consider [Stephen Krashen's](#) and his research about 2nd language acquisition and the need for comprehensible input. From the practical side of things, consider [ACTFL's position on use of the target language in the classroom](#). This includes ensuring that you use body language, gestures, and visual supports and that you scaffold instruction, provide frequent feedback and conduct numerous check for understanding. I encourage to read about more strategies to avoid the use of English in the classroom by [Helena Curtain](#).

Here's another [great article](#) about the "how to" for TL usage in the classroom! Here's [one](#) about the use of podcasts to infuse listening comprehension.



Don't forget... to connect with us at

www.learningconnection.doe.in.gov for IDOE's World Language & Cultures Community

PD Opportunities

IFLTA Conference

November 3-5, 2016 (Indy)
"Working Locally, Reaching Globally"

Full Day WL Workshops *

Includes Admin/Couns. for ½ day

August 3 – Jasper (#1)*

August 25 – Mishawaka (#7)

August 31 – Decatur (#8)

Sept. 8 – Connersville (#4)

Sept. 9 – Charlestown (#2)*

Sept. 13 – W. Lafayette (#5)*

Sept. 21 – Greencastle (#3)

Sept. 28 – Chesterton (#6)

Sept. 29 – Indianapolis (#9)

We will discuss ACTFL's World Readiness Standards, Proficiency-based instruction, Can-do Statements, IPAs and more...

[Sign up now!](#)

Do you have a favorite blog to share or a suggestion for a future Teachers' Toolbox? Let me know! →



New IDOE Tool

If you are ever curious about professional development events that apply to world languages offered by IDOE, check out the new calendar on the Events page. Use the tag "GLWL-PD" to search for events!

<http://www.doe.in.gov/calendar>



Specialist Contact

Jill Woerner @GlobalEDIndiana

Global Learning and World

Languages Specialist

jwoerner@doe.in.gov

317-234-5705



Health & Physical Education

Teachers' Toolbox

August 2016

Physical Education Program Checklist

How can you improve learning outcomes in PE? What can you do to ensure your PE program is meeting the needs of all students?

In 2015 SHAPE America released a guidance document that provides teachers, administrators, curriculum specialists, teacher educators and parents a hands-on tool for improving the strength and quality of PE programs across the nation.

Some of the ways the *Physical Education Program Checklist* can be used to improve your program include:

- *Get an honest assessment* – The 19-point checklist will help you review and improve your program across the [Essential Components of Physical Education](#), including policy and environment, curriculum, appropriate instruction, and student assessment
- *Identify areas of opportunity* – The checklist will point to the strengths and weaknesses in your program, helping you to identify resources needed to move the program forward
- *Start an informed conversation* – Use your completed checklist to make positive changes. Meet with your school administrator and other partners to develop an action plan

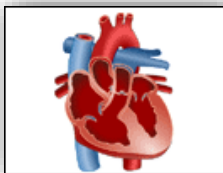
For more information: <http://bit.ly/2acQdTt>



health. moves. minds.

Classroom Instructional Resource:

[PBS LearningMedia](#) provides access to free digital content and PD opportunities designed to improve teacher effectiveness and student achievement. “[Map of the Human Heart](#)” is an animated feature that “illustrates how the chambers of the heart contract and relax in synchrony to push blood through the pulmonary and systemic loops of the circulatory system. Watch oxygen-depleted blood being pumped to the lungs, where it acquires oxygen before traveling back to the heart and ultimately being distributed throughout the body”.



Looking for Some Grant Opportunities?

1. Indiana Youth Institute's Grants and Fundraising page for several statewide and county specific opportunities <http://bit.ly/1U5U5oJ>.

Grant Highlight: – Target Field Trip grants. Each grant is valued up to \$700. **Deadline:** Applications accepted August 1 - October 1

2. U.S. Soccer Foundation's "Safe Places to Play" Fall Grant Cycle supports soccer programs and field-building initiatives. <http://bit.ly/2aeOwFK>. **Deadline:** October 7, 2016

Health and Physical Education Academic Standards Revision:

In the 2016-17 school year, the Indiana Department of Education plans to evaluate the current academic standards for both content areas. If you are interested in being considered to be a part of the review committee, please contact your specialist listed below.

Want to Be Connected?...

Be sure and join the [IDOE Learning Connection](#) and the “IDOE Health Educators” and/or the “IDOE Physical Educators” Community to receive updates from the IDOE and communicate with educators from across the state.

Specialist Contact:

Sue Henry, BSN, RN
Health Science, Health & Physical
Education Program Specialist
suhenry@doe.in.gov
317-234-0217

Health Science

Teachers' Toolbox

August 2016

Trends Impacting High School Health Science Curriculum:

What recent trends in healthcare and education will affect your health science curriculum?

TREND: CONCEPT-BASED CURRICULUM

Concept-based curriculum starts with a wide concept, and then drills down to the details. **Why does it matter?** Using concept-based curriculum allows your students to form a better foundation to prepare for certifications.

TREND: FROM HEALTHCARE TO HEALTH

Because the healthcare system is shifting toward prevention and wellness, your curriculum will need to change as well. **What can you do?** Look at the [National Prevention Strategy](#) to get ideas for new additions.

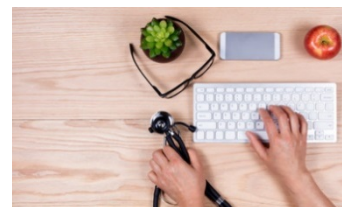
TREND: ENGAGING DIGITAL NATIVES

Your students need more than lectures. A lack of engagement will result in lower grades and higher turnover of students in your program. **How can you fix it?** Try something new! There are many blended learning resources you can try to keep your students engaged.

TREND: ENGLISH LANGUAGE LEARNERS

More and more ELLs are entering schools and CTE programs. These students want to learn, but need help succeeding. **How can you help?** Consider letting your students use a translation tool in the classroom so they can see English next to their native language.

For more information: <http://bit.ly/29LwEiU>



Professional Development:

The Health Science Curriculum Conference
Louisville Marriott Downtown, Louisville, KY
October 12-14, 2016 • October 11, 2016 Pre-Conference

www.healthscienceconsortium.org

Don't miss this wonderful opportunity to strengthen your teaching skills and learn innovative teaching strategies and best practices; all at a location so very close to home! This professional development is an approved use of Perkins Funds.

Resources:

- www.webadventures.rice.edu – Online science and health related games, quizzes and information that give students experiences exploring virtual clinical trials, science careers, forensic science, body systems, and more.

Connect me...PLEASE!

- Do you want to be able to connect with other health science teachers to share ideas and strategies for the classroom?
- Would updates from the IDOE on important and helpful information and resources be beneficial?

The good news is that there are TWO systems in place to make that happen!

1. Join the IDOE's [Learning Connection](#); then be sure and join the "[IDOE Health Science Educators](#)" Community. Questions? Call Sue Henry.
2. A new IDOE group email system will begin to be used in the 2016-17 school year. Be on the look out for emails from Sue, filled with updates and resources!

Specialist Contact:

Sue Henry, BSN, RN
Health Science, Health & Physical
Education Program Specialist
suhenry@doe.in.gov
317-234-0217

Family and Consumer Sciences and Work Based Learning

Teachers' Toolbox

August 2016



How do you get students moving in the classroom?

- Incorporate physical activity into lesson plans
- Take a walking tour of the neighborhood architecture for Interior Design
- Shaking cream to create butter exposes students to the process of making butter, helps them investigate molecular changes and learn about lactic acid from overuse of muscles.
- Allow students to complete texture rubbings of natural elements in Fashion and Textiles as you explain the elements of design
- Integrate brain breaks into lesson plans

"Movement isn't a break from learning; movement is learning."

Aleta Margolis as featured in *The Washington Post*

Building an Education Pathway *Indiana is experiencing a teacher shortage. How can you help?*

- Build your education pathway by offering Education Professions I and II
- Tap your best and brightest students to be future teachers
- Recruit diverse and non-traditional students
- Promote K-12 teaching including secondary content areas: Ex. Science, Math, etc
- Highlight the intrinsic rewards of teaching
- Maintain a positive environment in the classroom
- Participate in **Be a Teacher Day-coming in November**



VIEW INTERACTIVE FRAMEWORK



Explore the Employability Skills Framework and Categories

Applied Knowledge • Effective Relationships • Workplace Skills

FCCLA Empowers over 160,000 Youth Nationally

Two national officers elected from Indiana

Rylie Seaver-President-East Central
Shelby Lake-VP of Development-East Central



Nationals by the numbers:

- Indiana FCCLA received a membership award for increasing membership by **9%**
- **159** attendees from Indiana representing **22** chapters
- **76** STAR event competitors received 30 Gold medals and **37** Silver medal

FCCLA Adviser Workshop is open to anyone interested in learning more about FCCLA. August 31, 2016 J. Everett Light

FCCLA Fall Rally October 5, 2016 at Purdue University

To find out more or start a chapter visit www.infcccla.org

Professional Development

Indiana ACTE Conference

September 23-24, 2016

Marriott East

Indianapolis, Indiana

[Registration Information](#)

Multiple sessions related to
FACS and WBL

New Teacher Workshop

September 22, 2016

Specialist Contact

Alyson McIntyre-Reiger

317.232.9168

amreiger@doe.in.gov

Fine Arts

Teacher Resources



The Indianapolis Museum of Art offers a number of resources that can assist an educator. The IMA's Creative Classroom e-newsletter brings information about the museum's events and exhibits. The IMA has extensive online resources and activities, lesson plans, and reference library. The IMA also offers PGO opportunities. For more information: [IMA Teacher Resources](#)



With approximately 1,000 works of art on display and 10,000 works total in the collection, the David Owsley Museum of Art offers a rich resource that can enhance a variety of class subjects.

Because of the collection's breadth-with a concentration on European and American art and representations of most major world cultures-the museum can provide a variety of tours. For more information, contact the Museum and click [here](#).

19 STARS OF
INDIANA ART
★
A BICENTENNIAL CELEBRATION

This exhibition celebrates the artistic achievements of men and women who were born, raised, or worked in Indiana. The state's 200-year history is explored in key chapters that demonstrate creative accomplishments in painting, sculpture, photography, printmaking, and decorative, design, and fashion arts drawn from the Indianapolis Museum of Art's rich permanent collection.

The quality and variety of the contributions of Indiana's artists have created legacies of regional, national, and international distinction that are highlighted in honor of the state's bicentennial year. Docent-led tours of the *19 Stars* exhibition are available daily.

For more information:
<http://www.imamuseum.org/19stars>

Professional Development

Fall 2016 offers several PD opportunities for various segments of Fine Arts

August 20 – General Music Fall Workshop, Butler University, Indianapolis

August 27 – Northern Indiana General Music Workshop, St. Mary's College, Notre Dame, Ind.

September 8-9 – Southern Indiana Symposium & Clinic, University of Evansville, Evansville, Ind.

November 3 – Beginning & Developing Teachers Workshop, Butler University, Indianapolis

November 11-12 – Art Education Association of Indiana State Convention, Hamilton Southeastern HS, Fishers, IN

** If you know of any other PDs, please let Celya know!*



Calling all Fine Arts Teachers:

In the 2016-17 school year the Indiana Department of Education plans to evaluate course standards. If you are interested in being part of the review committee please contact your specialist listed below with your **name, subject area, school and contact information.**

Specialist Contact

Celya Glowacki
cglowacki@doe.in.gov
317-234-5719

Business, Marketing, Information Technology & Entrepreneurship (BMIT&E)

Teachers' Toolbox

August 2016

Meet Your Professional Affiliate Presidents



Robin Hubbard,
IBEA President

The president of the Indiana Business Education Association (IBEA) is Robin Hubbard who teaches at Twin Lakes High School in Monticello. Information about the organization can be found at www.in-ibea.org. Membership dues are \$25 a year. Contact membership director, Karen Hirshey, at khirshey@sacs.k12.in.us for more information.

The president of the Indiana Marketing Education Association (IMEA) is Troy Davis of Yorktown High School. Dues are \$10 a year. Contact membership director, Amber Reed, at areed@bps.k12.in.us for membership details.



Troy Davis,
IMEA President

Bookmark the BMIT&E Webpage

The BMIT&E webpage at www.doe.in.gov/cte/business-education contains information about our three Career and Technical Student Organizations (CTSO): BPA DECA, and FBLA. A quality CTE program should have a co-curricular CTSTO as part of their program. Additional information on the webpage includes links to standards, pathways, resources, Certiport/MSIA, professional affiliates, dual credit, licensing, and access to the Learning Connection.

Congratulations MOS U.S. Champions!

This past June Indiana had five students place in the top 10 for the United States Microsoft Office Specialist Championship in Orlando, Florida. These teachers had students compete and place:

Robin Perry, Brownstown Central, 8th place in Word 2013

Amy Hollingsworth, Blue River Valley, 4th place in Excel 2013

Marjorie Slamkowski, Portage, 5th place in Excel 2013

Angela Rhoads, South Newton, 7th place in PowerPoint 2013

Darla Harrington, Tri-County, 9th place in Word 2010

Upcoming Events:

Digital Citizenship Week - September 12-16

New and Newer Teacher Workshop (Indianapolis) - September 22

IACTE Conference (Indianapolis) – September 23-24

Ball State Business and Marketing Education Conference,
(Ball State Alumni Center, Muncie) - September 23

IBEA Conference (Indianapolis) - November 17-19

Mark Your
Calendar



Dena Irwin, State Program Leader
and Ann Schreck, Indiana's
Certiport Deployment Manager.

Program Leader Contact

Dena Irwin
dirwin@doe.in.gov
317.233.6004

K-12 Computer Science

Teachers' Toolbox

August 2016

Meet Your Professional Affiliate President



Julie Alano,
CSTA President

Julie Alano is Indiana's president for the Computer Science Teachers Association (CSTA). Julie is a mathematics and computer science teacher at Hamilton Southeastern High School northeast of Indianapolis. Julie can be reached at jalano@hse.k12.in.us. Membership for the Indiana CSTA chapter and the national organization is FREE to those that wish to join. Contact Phil Sands at psands@purdue.edu for Indiana membership information. Access the national CSTA website at <https://www.csteachers.org/page/IndividualMembership> to learn the benefits of membership.



Be sure to join the IDOE – Computer Science K-12 “user created” community on the Learning Connection today to start receiving information related to CS!!



10 Reasons to Teach Coding
By Brian Aspinall @mrspinnall

- 1 Coding allows students to create content, not just consume it.
- 2 Coding empowers students and gives them tools to express themselves in really cool ways.
- 3 Coding teaches storytelling with games and animations.
- 4 Coding is a place for students to take risks & fail safely.
- 5 Coding is inclusive & builds self-confidence.
- 6 Coding supports many principles of mathematics.
- 7 Coding teaches problem-solving and critical/analytical thinking skills.
- 8 Coding is a new type of literacy and will be a large part of future jobs.
- 9 Coding develops teamwork & collaborative skills.
- 10 Coding can help humanity.

BONUS: Coding gives you SUPERPOWERS!

©sylvia duckworth

Upcoming Events:

- ✓ **Digital Citizenship Week** - September 12-16
- ✓ **New and Newer Teacher Workshop** (Indianapolis) - September 22
- ✓ **IACTE Conference** (Indianapolis) – September 23-24
- ✓ **IBEA Conference** (Indianapolis) - November 17-19

Program Leader Contact

Dena Irwin ♦ dirwin@doe.in.gov ♦ 317.233.6004

K-12 Computer Science standards can be found at <http://www.doe.in.gov/standards/cte-business-marketing-information-technology>, then click the webpage link or PDF file.

August 2016